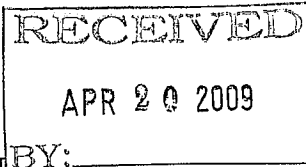


JS



VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Date 4/01/09

Contract ID 080425-605 Job No. J6P1004
County Franklin Original Bid Cost \$21,126,324.42
Contractor Millstone Bangert, Inc. By Matthew Alwardt
Designed By TBD Phone 636-949-0038
VECP# 09-22 (to be completed by C.O.) VECP ☒ or VECP/PDU ☐

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

The existing requirements for Homestead lane are to build two MSE walls and a cast-in-place wall which will require removing 350 feet of the existing pavement. Our proposal is to eliminate MSE wall # 7 & 8 and structure # A7620 by dropping the grade of Homestead lane by three feet and replacing the cast in place wall with guardrail which will reduce future maintenance costs. In order to do this we will need to lengthen the limits of pavement reconstruction by about 150 feet. This plan will speed up construction which will reduce the amount of time that Homestead lane will be closed and save on construction costs. Road design will be based on Franklin County standards.

2. Estimate of reduction in construction costs. \$75,290

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

There will be 170 feet of additional guardrail for Franklin County to maintain, but no walls along Homestead. There will also be additional new pavement installed in order to lower the road properly which will reduce future maintenance costs.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

4/3/2009

(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

5/1/2009

(date)

No effect on contract completion time.

(effect)

6. Dates of any previous or concurrent submission of the same proposal.

N/A

(date and/or dates)

RECEIVED
APR 23 2009
Construction & Materials - ECR

Additional Comments:

In order to keep construction moving forward in the Homestead area we would like to start design as soon as possible pending conceptual approval.

**** Portion Below This Line To Be Filled Out by MoDOT ****

Comments:

I support this VECP. The area management team supports the VECP as well. Not only will this VECP result in a cost savings, but it will reduce short term impacts to the local residents as well as reduce the future maintenance responsibilities of the Franklin County Highway Department. A separate spreadsheet is attached with all comments and questions as well as Millstone Bangerts reply. Upon approval of the VECP, Millstone will proceed with the design. Upon receipt, the design will be forwarded for review.

Tim Hellebusch EITC 4/20/09
Submitted By Resident Engineer Date

Comments: I RECOMMEND APPROVAL OF THIS VE CONCEPT. THE GEOLOGIST OF RECORD MUST ALSO ~~BE~~ APPROVE OF THE REDESIGN ALONG WITH THOSE NOTED ABOVE.

☒ Approval
Recommended

☐ Rejection
Recommended

Ed Harrington 4-20-09
District Engineer Date

Comments:

There is no Federal Oversight on this project.

☐ Approval
Recommended

☐ Rejection
Recommended

N/A
Federal Highway Administration
Required for FHWA Full Oversight Projects Date

Comments:

Conceptual approval is granted. Approval is dependent on comments above, including approval of the Geologist, and final approval of the design submitted. Denis Glascock. 04/22/2009

☒ Approval

☐ Rejection

David D. Glascock 5-11-09
State Construction and Materials Engineer Date

Distribution: Resident Engineer, Project Manager, District Construction & Materials Engineer, State Construction & Materials Engineer, Value Engineering Administrator – MoDOT, P. O. Box 270, Jefferson City, MO 65102

Bid Item	ID	Description	Unit Price	Original Quantities	Original Cost	VE Quantities	VE Cost
30	2031000	CLASS A EXCAVATION	\$ 2.85	213 CUYD	\$ 607.05	1000 CUYD	\$ 2,850.00
190	3040143	TYPE 1 AGGREGATE FOR BASE (4 IN. THICK)	\$ 4.50	700 SQYD	\$ 3,150.00	1035 SQYD	\$ 4,657.50
220	4011209	BIT. PAVEMENT MIXTURE PG64-22 (BP-1)	\$ 145.75	0 TONS	-	3.5 TONS	\$ 510.13
230	4013000	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BAS)	\$ 87.00	0 TONS	-	7.7 TONS	\$ 669.90
240	4019905	MISC. PAVEMENT OPTIONAL PAVEMENT	\$ 22.50	700 SQYD	\$ 15,750.00	1000 SQYD	\$ 22,500.00
370	6061010	GUARDRAIL TYPE A	\$ 16.50	575 LF	\$ 9,487.50	778 LF	\$ 12,837.00
390	6062204	BRIDGE ANCHOR SECTION, 6 FT. OR 1830 MM	\$ 1,600.00	2 EA	\$ 3,200.00	0 EA	\$ -
400	6062300	TRANSITION SECTION, 6 FT. OR 1830 MM POS	\$ 250.00	2 EA	\$ 500.00	0 EA	\$ -
410	6063015	TYPE A CRASHWORTHY END TERMINAL	\$ 1,785.00	2 EA	\$ 3,570.00	2 EA	\$ 3,570.00
570	6099903	MISC. PAVED DRAINAGE MOD. TYPE B CURB AN	\$ 35.22	0 LF	-	500 LF	\$ 17,610.00
1190	7201000	MECHANICALLY STABILIZED EARTH WALL SYS	\$ 43.95	835 SQFT	\$ 36,698.25	0 SQFT	\$ -
2770	2061000	CLASS 1 EXCAVATION	\$ 50.61	140 CUYD	\$ 7,085.40	0 CUYD	\$ -
2780	2061003	CLASS 1 EXCAVATION IN ROCK	\$ 111.34	61 CUYD	\$ 6,791.74	0 CUYD	\$ -
2790	7034009	CLASS B-1 CONCRETE (RETAINING WALLS)	\$ 414.98	107.4 CUYD	\$ 44,568.85	0 CUYD	\$ -
2800	7061040	REINFORCING STEEL (RETAINING WALL)	\$ -1.83	4290 LB	\$ 7,850.70	0 LB	\$ -
2810	7101000	REINFORCING STEEL (EPOXY COATED)	\$ 1.83	6140 LB	\$ 11,236.20	0 LB	\$ -
		Design Services	\$ 10,000.00	0 LS	\$ -	1 LS	\$ 10,000.00
		TOTALS			\$ 150,495.69		\$ 75,204.53

Potential Savings \$ 75,291.17

Judy Wagner

Q: What will be the maximum slopes allowed (Rock)?

A: 1.5:1 max slope with rock. (will be no higher than 3' with this slope, behind guardrail only and on solid rock) This will be addressed during design in order to meet the requirements of a 10' setback.

Q: Are we going to include a maximum number of days that Homestead can be closed?

A: Yes. I propose 10 working days.

Q: Do we need a crashworthy end section on the guardrail or does Rich want to specify some other kind of end treatment?

A: There is already a crashworthy setup in the job. The guardrail that we are proposing to add into the job will tie into guardrail on both sides that was already in the original contract.

Tim Schroeder

Q: A new component of this evaluation, based on External Civil Rights Training yesterday, is that we should ask the question: Does the elimination of the MSE walls and the CIP wall reduce the DBE contribution to the project? We should communicate to the contractor that we (MoDOT) are serious about reaching our DBE goals and our trainee hours.

A: The MSE walls are a reduction in DBE participation by 0.17% from the original contract. According to my numbers, MBI has 15.4% DBE participation on this project that only requires 14%. MBI will make every effort to make sure that our DBE participation is met on this project.

St. Clair Project Office

Q: Have utilities been addressed?

A: Upon initial inspection we believe that utilities will not be an issue.

Q: What about the condition of the Rock Face between Homestead and New Route 100

A: The rock face could be an issue even if we built the job per the original contract. This will have to be addressed in the field when the rock face is completely opened up.

Q: Final quantities will be determined by field measurements

A: Yes.

Q: Need to make sure we include 24/7 access for all property owners

A: Yes.

Q: Need to make sure we communicate with property owners

A: Yes.

Q: Need to make sure we address drainage

A: Drainage should be taken care of by the curb and gutter that will be on the low side of the super. The area that we are lowering the road is at the top of the hill and water shedding off the road will be caught by the gutter and run down the road to ditches at both ends.

Q: Need to include a maximum # of Days for closure with penalties (7 calendar days?).

A: I propose 10 working days because we will have to maintain access to parcel 68 during construction which may require staging construction.

Rich Wilson

This is the first time I have seen this and I have not seen any plan drawings and affect on the residents. Driveway slopes and loss of trees?

What advantage is it to the county?

My Response to Rich: Rich - I had you in the original email, but you and a couple others were accidentally deleted just prior to sending it out. The proposal enclosed is just a conceptual. The design will follow once we give preliminary approval. The benefits to the county include a shorter road closure, less maintenance (guardrail vs. retaining walls) and more new pavement (additional 150' with a possible geometric improvements - will have to wait to see what comes out of the design). As for as the impacts to the residents, we will be reducing that by shortening the closure time. Driveway slopes will be addressed and shown on the plans when completed. We could always go back further to decrease the slope. As far as trees, we were going to address that in the field. You will be given an opportunity to review the plans once they are complete. Please don't hesitate to call or email should you have any comments or questions.

VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- ☐ Paving (PCCP, ect.)
- ☒ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

Change in grade, lengthening pavement limits, and addition of guard rail eliminates MSE and cast-in-place walls.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.